

### DETAILED ACTION

1. This office action is in response to the after final submitted 24 September 2010.

The amendments to the claims have been entered.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steve Jinks on 8 October 2010.

The application has been amended as follows:

Claim 1 is cancelled.

Claim 5:

A fuel cell comprising:

an electrolyte later ~~for a fuel cell according to claim 1~~, comprising:

a compact substrate having hydrogen-permeability;

a porous layer having pores, wherein the porous layer is inorganic and comprises a thin film, porous body that is directly formed on the substrate; and

an inorganic electrolyte having proton-conductivity and supported in the pores, wherein the electrolyte includes a solid acid and

an electrode disposed adjacent to the porous layer, on the side opposite the substrate.

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Claim 6

A method of manufacturing ~~an electrolyte layer for~~ a fuel cell, the method comprising:

manufacturing an electrolyte layer by:

preparing a compact substrate having hydrogen-permeability;

forming, directly on the substrate, a porous layer having pores, wherein the porous layer is inorganic and comprises a thin film, porous body; and

supporting an inorganic electrolyte having proton-conductivity in the pores, including:

introducing a solution of a solid acid into the pores of the porous layer, and

drying the porous layer containing the ~~solution~~, solution, and disposing an electrode adjacent to the porous layer, on the side opposite the substrate.

Claim 9

The ~~electrolyte for~~ a fuel cell according to ~~claim 1~~ claim 5, wherein the hydrogen permeable layer further comprises palladium.

Claim 10

The method of manufacturing ~~an electrolyte layer for~~ a fuel cell according to claim 6, wherein the hydrogen permeable layer further comprises palladium.

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3. The following is an examiner's statement of reasons for allowance: The closest prior art of record discloses a porous layer embedded with ammonium polyphosphate (a solid acid) adjacent to platinum or noble metal. Haufe discloses the platinum or noble metal as the electrode. However, Haufe et al. do not teach or suggest to include an additional layer adjacent to the porous layer opposite the substrate as stated in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA J. LAIOS whose telephone number is (571)272-9808. The examiner can normally be reached on 11am-7pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on 571-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. J. L./  
Examiner, Art Unit 1727

/Dah-Wei D. Yuan/  
Supervisory Patent Examiner, Art Unit 1727